

WHAT IS CLAIMED IS:

Sub 1
5 1. A stent graft comprising:

at least one stent having a proximal end and a distal end and having a lumen extending therethrough between the proximal and distal ends, and

a covering of collagen having an extracellular matrix, secured to the at least one stent and extending therealong between the proximal and distal ends.

Sub 10 2. The stent graft of claim 1, wherein the covering extends along inside and outside surfaces of the at least one stent.

Sub 15 3. The stent graft of claim 1, comprising a plurality of stents connected together to form a stent frame with lumens of the respective stents coaligned to form a common continuous lumen extending from a distal stent frame end to a proximal stent frame end, and the covering extending therealong between the proximal and distal stent frame ends.

4. The stent graft of claim 3, wherein the stent frame has eyelets at the proximal and distal ends.

Sub 20 5. The stent graft of claim 4, wherein the covering is sutured to the stent frame using a filament of biocompatible material that extends through the eyelets.

6. The stent graft of claim 3, wherein each of said plurality of stents has eyelets at proximal and distal ends thereof, and the covering is sutured to the stent frame using a filament of biocompatible material that extends through the eyelets.

7. The stent graft of claim 1, wherein the covering is secured to the at least one stent at locations along the stent using a filament of biocompatible material, the locations being adapted to secure the filament in position against movement axially with respect to the stent during
5 deployment at a treatment site of a patient.

1931 103 8. The stent graft of claim 1, wherein the covering is a sleeve of small intestine submucosa material.

1931 103 9. The stent graft of claim 8, wherein the sleeve is defined by connecting together along a seam opposite edges of at least one flat tissue of the
10 small intestine submucosa material.

Sub 17 10. The stent graft of claim 1, wherein the covering is a sleeve that initially has a length about equal to twice the length of the at least one stent, a first portion of the sleeve extends along an inside surface of the at least one stent, and a second portion of the sleeve is folded back over
15 a proximal end of the at least one stent and then along an outside surface of the at least one stent to the distal end thereof.

11. The stent graft of claim 1, wherein the covering is disposed along the stent frame and therewithin.